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(54) **OPENING-CLOSING DEVICE**

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16/366; 16/368; 361/679.27; 361/679.3; 379/433.13

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See application file for complete search history.

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(57) **ABSTRACT**

An opening-closing device includes a fixed gear of a fixed body, a conversion gear engaged with the fixed gear, a movable gear of a movable body, and a relay gear engaged with the conversion gear and with the movable gear, all of which are attached to a locking plate. The movable body can be held at a predetermined angle with respect to the fixed body by making an engaging portion in the locking plate is contacted with a locking portion in the fixed body and by making the conversion gear move to another position when the movable body is opened at the predetermined angle with respect to the fixed body. Moving the conversion gear to another position makes it possible to perform opening and closing operations in a greater angle. Thus, the opening-closing device can have a simple structure and perform a variety of opening and closing operations.

11 Claims, 12 Drawing Sheets

